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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/446,507	12/27/1999	KAZUO KATO	500.38017X00	2422

20457 7590 05/07/2003

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EXAMINER

BOCURE, TESFALDET

ART UNIT	PAPER NUMBER
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2631

DATE MAILED: 05/07/2003

9

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/446,507

Applicant(s)

KATO ET AL.

Examiner

Tesfaldet Bocure

Art Unit

2631

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 March 2000 and 20 February 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17, 24 and 26 is/are pending in the application.
- 4a) Of the above claim(s) 18-23, 25 and 27-31 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 13 is/are allowed.
- 6) ☒ Claim(s) 1, 4, 5, 9-12, 14-17 and 24 is/are rejected.
- 7) ☒ Claim(s) 2, 3, 6-8 and 26 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3. 6) ☐ Other: _____

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DETAILED ACTION

1. In response to this office action, Applicant is reminded to cancel the unelected claims.

Information Disclosure Statement

1. The Information Disclosure Statement (IDS) received on 12/27/99 has been approved by the Examiner and the initialed copy of the 1449 is attached with this correspondence.

Specification

2. The abstract of the disclosure is objected to because it is too long and should be between 50 to 250 words. The last word "THE" in the abstract should be deleted. Correction is required. See MPEP § 608.01(b).

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
4. Claims 17/14, 17/15 and 17/16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 17: "Said power supply circuit" in lines 4-5 lacks a clear antecedent basis.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
6. Claims 1,4 and 5 are rejected under 35 U.S.C. 102(b) as being anticipated by **Kardontchik et al.** (US patent number 5,566,204).

Kardontchik et al. (**Kardontchik** hereinafter) teaches a fast acquisition clock recovering circuit (fig.1) comprising: a first clock recovering circuit having a first control section (see phase detector) for detecting the phase

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difference of the received clock (see clock output from the XOR) and that of the internally generated clock (see second input from the oscillator 24); and a second control section (see frequency detector) for detecting the frequency difference of the received clock (see clock output from the XOR) and that of the internally generated clock (see second input from the oscillator 24) ; an oscillator for receiving the output clock control signal from the phase and frequency detector as in claims 4,5; and feedback loop controlling both the phase detector 54 and frequency detector 70 as in claim 1.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claim 24 is rejected under 35 U.S.C. 102(b) as being anticipated by **Alvarez et al.** (US patent number 5,362,990).

Alvarez et al. (**Alvarez** hereinafter) teaches a phase lock loop (fig.2) comprising: a phase detector for detecting the phase difference of the received clock (see Reference clock signal) and that of the internally generated clock (see second input from divider 78); and a charge pump (10 fig. 2 and figure 1), wherein the charge pump (fig. 1) circuit having means for charging up and down the capacitor (see starting col. 2, line 33 through col.6, line 59 and col. 8, lines 4-20) in response to the phase difference from the phase detector (74).

Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10. Claim 14 is rejected under 35 U.S.C. 102(e) as being anticipated by **Barrett, Jr. et al.** (US patent number 5,422,911).

Barrett, Jr. et al. (**Barrett** hereinafter) teaches a phase looking loop (claimed processor) comprising: means for processing the received reference clock source (claimed data) according to an externally controlled clock signal.

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Wherein the frequency of the phase lock loop is controlled by an external source (see frequency control bus in figure fig. 4 and 105 in figures 2 and 3) as in claim 14.

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claims 9,10,11,12,15 and 16 rejected under 35 U.S.C. 103(a) as being unpatentable over **Barrett, Jr. et al.** (US patent number 5,422,911) in view of **Kardontchik et al.** (US patent number 5,566,204).

Barrett, Jr. et al. (**Barrett** hereinafter) teaches a phase locking loop (claimed processor) comprising: means for processing the received reference clock source (claimed data) according to the controlled clock signal. Wherein the frequency of the phase lock loop is controlled by an external source (see frequency control bus and 105) as in claims 9,10,11,12 and 14.

What **Barrett** fails to teach is that the phase locking circuit as having the claimed first and second feedback circuits as in claims 11 and 16 and first and second control circuits as in claims 9,10,12 and 15.

Kardontchik for the same endeavor, phase locking loop, as the instant application and that of **Barrett** teaches a fast acquisition clock recovering circuit (fig.1) comprising: a first clock recovering circuit having a first control section (see phase detector) for detecting the phase difference of the received clock (see clock output from the XOR) and that of the internally generated clock (see second input from the oscillator 24); and a second control section (see frequency detector) for detecting the frequency difference of the received clock (see clock output from the XOR) and that of the internally generated clock (see second input from the oscillator 24) ; an oscillator for receiving the output clock control signal from the phase and frequency detector; and feedback loop controlling both the phase detector 54 and frequency detector 70.

Therefore it would have been obvious to one of an ordinary skill in the art to use the frequency difference circuit detector for correcting the frequency at the time the invention was made.

Allowable Subject Matter

13. Claim 13 is allowed.

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14. Claims 2,3,6,8 and 26 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

15. Claim 7 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Conclusion

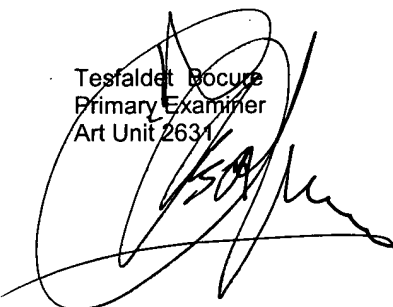
16. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US patent numbers 5,414,390; 5,512,860; 5,52,733; 5,710,526; 5,825,640; 5,909,474; 5,936,445; 6,177,821; 6,424,230 issued to Kovacs, Hucroft et al., Lesmeister, Nauta et al., Quigley et al., Yoshizawa, Babanezhad et al., Morikawa, Kocaman et al. respectively disclose a PLL circuit.

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tesfaldet Bocure whose telephone number is (703) 305-4735. The examiner can normally be reached on Mon-Thur (7:30a-5:00p) & Mon.-Fri (7:30a-5:00p).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham can be reached on (703) 305-4378. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9314 for regular communications and (703) 305-3988 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700.

Tesfaldet Bocure
Primary Examiner
Art Unit 2631



T.Bocure
May 2, 2003